#### **REMARKS**

## I. <u>Introduction</u>

In response to the pending Office Action, Applicants have cancelled claims 4 and 11 and have amended claims 1, 8 and 17 so as to further distinguish the present invention over the cited prior art references. Claims 1 and 8 have been amended to include the limitations of claims 4 and 11, respectively. Claim 17 has been amended to recite the language that was indicated to be allowable as set forth on page 10 of the Office Action. The sole omission with regard to the language identified by the Examiner was the replacement of organic material for polyethylene fibers.

In addition new claims 25-32 have been added. Support for new claims 25 and 26 can be found, for example, in Table 1 of the specification. New claims 27 and 28 recite similar subject matter to that recited by claim 17. New claims 28-31 are directed to the use of polyethylene as the organic material. Finally, new claim 32 is directed to the embodiment of the present invention set forth on page 9, line 18 to page 10, line 10 of the specification. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are in condition for allowance.

### II. The Rejection Of Claims 1 And 4-7

Claims 1 and 4-7 were rejected under 35 U.S.C. § 102 as being anticipated by USP No. 4,497,677 to Sanada, and in the alternative under 35 U.S.C. § 103 as being obvious in view of Sanada. For the following reasons, Applicants respectfully submit that the pending claims are patentable over Sanada.

As set forth above, claim 1 has been amended to recite that *the ceramic sheet* 

presents less than 50 % in porosity after said first step of applying a pressing force to the ceramic sheet. In contrast, it does not appear that Sanada discloses or suggests any percentage of porosity of the ceramic sheet after a step of applying pressure. As such, at a minimum, Sanada fails to satisfy this element of amended claim 1.

Accordingly, as anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and Sanada at least fails to disclose the foregoing element of claim 1, it is clear that Sanada does not anticipate amended claim 1, or any claim dependent thereon.

Moreover, as each and every limitation must be disclosed or suggested by the prior art in order to establish a *prima facie* case of obviousness (*see*, M.P.E.P. § 2143.03), and Sanada does not appear to mention or consider porosity requirements, it is clear that Sanada also fails to render the present invention obvious.

For all of the foregoing reasons, it is respectfully submitted that claim 1 and the claims dependent thereon are patentable over Sanada.

## III. The Rejection Of Claims 1-7

Claims 1-7 were rejected under 35 U.S.C. § 103 as being obvious over JP 11-111560 in view of Sanada. For the following reasons, Applicants respectfully submit that the pending claims are patentable over the '560 reference and Sanada, taken alone or in combination with one another.

First, as noted in the pending rejection, the '560 reference fails to disclose applying a pressing force in order to reduce the porosity of the ceramic sheet prior to

forming conductive layers on the ceramic sheet. Further, the '560 reference merely states that the porosity of the ceramic sheet should be less than 80% and more than 30%. The '560 reference does not appear to indicate the importance/advantages associated with having the porosity less than 50%. Thus, even if the references were properly combinable, the combination does not necessarily result in the claimed invention, as it is possible that the resulting ceramic sheet practicing the teachings of the '560 reference would only have a porosity of 80%. Accordingly, as the combination of the cited prior art does not necessarily result in the claimed invention, the combination does not present a *prima facie* case of obviousness.

For all of the foregoing reasons, it is respectfully submitted that claim 1, as amended, is patentable over the combination of the '560 reference and Sanada.

# IV. The Rejection Of Claims 8-14 And 16

Claims 8-14 and 16 were rejected under 35 U.S.C. § 103 as being obvious over JP 11-111560 in view of Sanada as set forth above, and further in view of JP 2-42797 or JP 10-200260.

As claim 8 has been amended in the same manner as claim 1, for the same reasons as set forth above, it is respectfully submitted that claim 8 and the claims dependent thereon, are patentable over the foregoing prior art references.

## V. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc.* 

v. Simplimatic Engineering Co., 819 F.2d at 1100, 1108 (Fed. Cir. 1987).

Accordingly, as claims 1, 8 and 17 are patentable for the reasons set forth above, it is

respectfully submitted that all claims dependent thereon are also in condition for

allowance.

VI. **Request For Notice Of Allowance** 

Having fully responded to all matters raised in the Office Action, Applicants

submit that all claims are in condition for allowance, an indication for which is

respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an

Examiner's amendment, the Examiner is requested to call Applicants' attorney at the

telephone number shown below.

Applicant believes that no extension of time is required. However, this

conditional petition is being made to provide for the possibility that Applicant has

inadvertently overlooked the need for a petition for extension of time.

Commissioner is hereby authorized to charge any additional fees associated with this

communication or credit any overpayment to Deposit Account No. 50-0417.

Respectfully submitted,

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